ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL

Game Branch / HPC Project Number:	14-104

PROJECT INFORMATION

Project Title: Alma Mesa Water System Phase 1

Region and Game Management Unit: Unit 27

Local Habitat Partnership Committee (LHPC): Safford HPC	**Was the project presented to the LHPC?** **YES**[x] **NO**[]

Has this project been submitted in previous years? YES[] **NO**[x]
If Yes, was it funded? YES[] **NO**[] → **Funded HPC Project #(s)**:

Project Type: Water Development

Brief Project Summary: Build multiple solar pumping systems with one water system to provide consistent water for wildlife in an area reliant only on stock tank water / rainfall. Water improvement will also provide for better distribution of domestic livestock which will lead to improved wildlife habitat.

Big Game Wildlife Species to Benefit: Rocky Mountain elk, mule deer, bear, turkey, and nongame species

Implementation Schedule (Month/Day/Year):

Project Start Date: 05/01/2015

Project End Date: 05/01/2016

Environmental Compliance:
NEPA Completed: Yes[x] No[] N/A[]
Projected Completion Date: 03/01/2014

State Historic Preservation Office - Archaeological Clearance:
Yes[x] No[] N/A[]
Projected Completion Date: 03/01/2014

Arizona Game and Fish Department EA Checklist: N/A[]
To be Completed by: _____
Projected Completion Date: _____

PROJECT FUNDING

Special Big Game License Tag Funds Requested:	**$** 15,845
Cost Share or Matching Funds:	**$** 18,766
Total Project Costs:	**$ 34,611**

PARTICIPANT INFORMATION

Applicant (please print): Carol Telles - USFS	**Address**: 397240 AZ 75 Duncan, AZ 85534	**E-mail**: ctelles@fs.fed.us
Telephone: 928-687-8612		**Date**: 03/12/2014

AGFD Contact and Phone No. (If applicant is not AGFD personnel):
Steve Najar; 928-965-5066

Project has been coordinated with:
Apache-Sitgreaves NF, AZGFD, Spur Ranch LLC

NEED STATEMENT – PROBLEM ANALYSIS:

- Water throughout area is limited to stock tanks. Stock tank water is unreliable, and based on weather patterns and cycles. This water system will provide more reliable water to wildlife in the area as well as improving overall habitat conditions in the riparian areas as well as the uplands through effective dispersal and management of livestock.

PROJECT OBJECTIVES:

- Improve water availability for Rocky Mountain Elk, Mule Deer,Whitetailed Deer, Turkey, and other wildlife species.
- Improve livestock distribution through better water availability; thus improving browse and herbaceous forage conditions throughout the entire area.
- Provide for a reliable year-round water system that will benefit all game and nongame species that is not dependent upon rainfall and climate patterns.

PROJECT DESCRIPTION AND STRATEGIES:

- Install 2 solar pump systems to service numerous water sources.
- Install 1.53 miles of pipeline.
- Install 1 – 3000 gallon storage tank.
- Install 2 – 750 gallon drinkers.
- Install 1 – 5000 gallon storage tank.

PROJECT LOCATION:

Township: Mud Springs System: T1N;

Range: All R32E

Section: Solar Systems: S17; Mud Springs Pipeline: S17, 20; Mud Springs Storage Tank: S17; Mud Springs Trough #1: S20; Mud Springs Trough #2

LAND OWNERSHIP AT THE PROJECT SITE(S)*:*

(if the project area is <u>private property,</u> please state specifically and provide the landowner's name)

- USDA Forest Service; Apache-Sitgreaves National Forest; Clifton Ranger District

  IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?
  YES[] NO[] N/A[x]

HABITAT DESCRIPTION:

- The area consists mostly of Pinyon-Juniper Savannah Eco-type. Vegetation consists of Pinyon Pine, One Seed Juniper, Alligator Juniper, Oak, Blue Grama, Hairy Grama, Sideoats Grama and Curly Mesquite. The average elevation is 6300 ft.

ITEMIZED USE OF FUNDS:

<u>Special Big Game License Tag Funds</u>

- 2 Solar Systems (collector, pump plus 3d party labor): $15,845

<u>Cost Share or Matching Funds (*for volunteer labor rates please refer to the worksheet below*)</u>

- Forest Service Matching Funds: 1-3,000 storage tank: $1,694, 1 – 5000 gal storage tank: $3,296, 1.53 miles pipeline: $4,281
- Permittee Labor and Equipment:
    - Labor cost for installation of 2 men at combined rate of $40 per hour for 10 hours per day for 5.7 days ($2280) plus one man for maintenance at $20 per hour for 10 hours per day for 4 days per year for 5 years ($4000). Total: $6,280
    - Equipment: Tractor/flatbed/pickup at $350 per day for 5.7 days ($1,995) plus fuser at $100 per day for 5.7 days ($570). Other miscellaneous equipment, no charge. Total: $2,565.
    - Total Permittee Contribution: $8,845.

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?
YES[] NO[x] N/A[]

PROJECT MONITORING PLAN:
The Forest Service will be monitoring long term vegetation trends on a five to ten year cycle.
Annual monitoring will be conducted by the permittee and/or the Forest Service. Annual monitoring will consist of data related to livestock utilization, distribution, actual use, and production.

PROJECT MAINTENANCE:
Water system will be maintained by the permittee. Water will be available to wildlife year-round.

PROJECT COMPLETION REPORT TO BE FILED BY:
USDA Forest Service; Apache-Sitgreaves NF; Clifton Ranger District; Rangeland Management Department

WATER DEVELOPMENT PROJECTS (*please use the worksheet below***):**

TREE CLEARING/REMOVAL PROJECTS (*please use the worksheet below***):**

ARIZONA GAME AND FISH DEPARTMENT
WATER DEVELOPMENT WORKSHEET

PROJECT TITLE: Alma Mesa Water System

1) Is the water development listed as a priority in the most recent "Wildlife Water Development Annual Implementation Schedule?"
N/A

2) Please list the Development Branch personnel and date coordinated with for this project.
N/A

3) What is the estimated annual inches of precipitation for the area? (mark one)
[]2-4 []4-6 []6-8 []8-10 []10-12 [x]12-14 []14-16 []>16

4) Is there a perennial water source available to big game within four miles of this project?

YES[x] (please complete #5 below) NO[] (skip #5 below**)**

5) For the accessible, perennial water source nearest this project:
Name of water source: Little Blue Creek
Type of water source (catchment, spring, dirt tank): River
Ownership of water source: USFS
Distance in miles from project: 3 miles

6) Is the target wildlife species a result of transplant efforts? YES[] NO[x]

7) Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.
Blue Primitive Area within USFS Clifton Ranger District

8) Please provide the following information about access to the proposed site:
Type of access (mark one): []2x4 vehicles [x]4x4 only [x]foot only**
**If foot access only: Distance in miles: 3.5 Approximate hiking time: 1hr
-- Does access to this site require crossing private or tribal lands? YES[] NO[x]
-- Please describe any restrictions to public access:
Blue Range Primitive Area – Wilderness restrictions apply.

9) Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.

- 1" plastic poly pipe 200psi
- 3000 gallon plastic storage tank
- 5000 gallon plastic storage tank
- 750 gallon plastic drinker/troughs
- Solar System with collector, pump, 2" metal pipe

10) Was a site visit completed? Yes[X] No[]
If Yes, please list personnel that attended and date.
Tom Paterson (Permittee) & Ben Goodin (USFS) June 2013
Steve Najar (AGFD), November 2013

Project Overview

The system will operate off a 500 foot deep well at the State Line Cabin and a 5,000 gallon water storage tank near the well. The plan is to put a solar pump (Phase 1) in the well at approximately 450 foot depth and pump water to the storage tank. From there, another solar system (Phase 1) will pump the water to three different systems: Mud Springs (Phase1), West Trap (Phase 2) and Alma Mesa (Phase 3). The total project will include 4.12 miles of pipeline, 1-5,000 gallon storage tank, 3-3,000 gallon storage tank, 5-750 gallon poly drinkers, and 2 solar arrays. Upon completion of the project, year round water will be provided to 13,400 acres of land. This will greatly enhance availability of drinking water throughout the area and enhance available forage through increased distribution of livestock use.

Phase 1

Phase 1 will include the 2 solar arrays, the 5,000 gallon storage tank, and the Mud Springs distribution system. The Mud Spring system includes 1.53 miles of pipeline, a 3,000 gallon storage tank, and 2-750 gallon poly drinkers. See attached maps for project location.

Phase 2

Phase 2 will include two more distribution systems: West Trap and Alma Mesa systems. The West Trap system includes .59 miles of pipeline, 1-3,000 gallon storage tank, and 1-750 gallon poly drinker. The Alma Mesa system includes 2 miles of pipeline, 1-3,000 gallon storage tank, and 2-750 gallon poly drinkers.